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Durable conductive fibre - comprising polyester fibre dyed with basic dye with conjugated polymer on surface

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## **Patent Family**

Patent Number	Kind	Date	<b>Application Number</b>	Kind	Date	Week	Туре
JP 4202856	A	19920723	JP 90329765	Α	19901130	199237	В
JP 2874334	B2	19990324	JP 90329765	A	19901130	199917	

Priority Applications (Number Kind Date): JP 90329765 A (19901130)

## **Patent Details**

Patent	Kind	Language	Page	Main IPC	Filing Notes
JP 4202856	A		6	D06M-015/356	
JP 2874334	B2		4	D06M-015/21	Previous Publ. patent JP 4202856

## Abstract:

JP 4202856 A

The conductive fibre is composed of (a) the fibre prepd. by disperse dyeing a polyester fibre which can be dyed with a basic dye, and (b) electron-conjugated polymer present at least on the surface of the base fibre.

Conductive fibre is produced by dyeing an anionically modified polyester fibre with a disperse dye; reduction scouring the dyed fibre; and immersing the base fibre in a treating liquor contg. (i) monomer capable of forming electron-conjugated polymer and (ii) oxidative polymerisation initiator. The fibre has an electron-conjugated layer at least on the base fibre surface.

ADVANTAGE - The fibre offers durable conductivity, because it is free of basic substance capable of abstracting dopant combined with the conductive polymer molecule.

In an example, an anionically modified polyester fibre yarn was dyed with disperse dye in the presence of levelling agent at 130 deg.C for 60 minutes. After reduction scouring followed by washing with diluted acetic acid, the yarn was immersed in an aq. soln. contg. 1.5% o.w.f. of pyrrole, 2.3 moles (per 1 mol of pyrrole) of ferric chloride and 5 wt.% of isopropanol at 25 deg.C for 180 minutes, to form conductive polymer layer on the base fibre surfaceThe

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